

CURRENT LISTING OF CLAIMS:

1. (Currently amended) An analyte detection station for an automated immunoassay analyzer, comprising:

- a read station rotatable between an entry position and a read position;
- a detector coupled to said read station at said read position for detecting radiant energy or color emanating from said read station;
- a wash station that performs a wash operation;
- a transport device that receives vessels from said wash station and for transporting a plurality of vessels from said wash station through a defined path, each of said vessels containing at least one bound analyte and at least one compound for emitting radiant energy or color, and for transferring one of said plurality of vessels from said defined path into said read station at said entry position;
- wherein said read station is capable of rotating a transferred vessel from said entry position to said read position independently of motion of said plurality of vessels through said defined path.

2. (Original) The analyte detection station for an automated immunoassay analyzer as recited in claim 1, wherein said detector detects chemiluminescence.

3. (Original) The analyte detection station for an automated immunoassay analyzer as recited in claim 1, wherein said detector detects fluorescence.

4. (Original) The analyte detection station for an automated immunoassay analyzer as recited in claim 1, wherein said detector detects phosphorescence.

5. (Previously presented) The analyte detection station for an automated immunoassay analyzer as recited in claim 1, wherein said read station includes a shield for shielding said transferred vessel from external radiant energy when it is transferred to said read position when said detector is detecting said radiant energy.

6. (Currently amended) The analyte detection station for an automated immunoassay

analyzer as recited in claim 5, wherein said read station biases the [[test]] vessel in said read station a set distance from the detector when in the read position.

7. (Previously presented) The analyte detection station for an automated immunoassay analyzer as recited in claim 5, wherein said read station operates by rotational movement.

8. (Previously presented) The analyte detection station for an automated immunoassay analyzer as recited in claim 5, wherein said read station further moves said transferred vessel to a disposal position for disposing of said vessel after it moves said vessel to said read position.

9. (Previously presented) The analyte detection station for an automated immunoassay analyzer as recited in claim 8, wherein said read station operates by rotational movement.

10. (Original) The analyte detection station for an automated immunoassay analyzer as recited in claim 1, wherein said transport device is a continuous carousel, chain or belt which includes a plurality of vessel receptacles for receiving each of said plurality of vessels.

11. (Previously presented) The analyte detection station for an automated immunoassay analyzer as recited in claim 10, wherein said continuous chain or belt can receive vessels in said vessel receptacles at a plurality of locations.

12. (Previously presented) The analyte detection station for an automated immunoassay analyzer as recited in claim 1, further comprising an attenuation means for attenuating light signals entering said detector from said read station.

13. (Previously presented) The analyte detection station for an automated immunoassay analyzer as recited in claim 12, wherein said attenuation means is

located between said read station and said detector, wherein said attenuation means can be set at any one of at least two attenuation positions.

14. (Previously presented) The analyte detection station for an automated immunoassay analyzer as recited in claim 13, wherein said any one of at least two attenuation positions include: an unattenuated position where light from said vessel can be read directly by said detector, and an attenuated position where light from said vessel can be read by the detector through a neutral density filter.

15. (Previously presented) The analyte detection station for an automated immunoassay analyzer as recited in claim 12, wherein said attenuation means is located between said read station and said detector, wherein said attenuation means can be set at any one of at least three attenuation positions.

16. (Previously presented) The analyte detection station for an automated immunoassay analyzer as recited in claim 15, wherein said any one of at least three attenuation positions include: an unattenuated position where light from said vessel can be read directly by said detector, a dark position where no light from said vessel can be read by said detector, and an attenuated position where light from said vessel can be read by the detector through a neutral density filter.

17. (Previously presented) The analyte detection station for an automated immunoassay analyzer as recited in claim 1, further comprising means for measuring dark counts for determining ambient light levels within the detector.

18. (New) In an analyte detection station for an automated immunoassay analyzer having a detector for detecting radiant energy or color emanating from a vessel containing at least one bound analyte and at least one compound for emitting radiant energy or color, the improvement comprising:

a transport device that receives vessels at a receiving position and transports a plurality of vessels through a defined recirculating path toward said detector; and

a read station located between said detector and said transport device, rotatable between an entry position adjacent to said transport device and a read position adjacent to said detector, said read station receiving a vessel at said entry position, rotating said received vessel to said read position, and not accepting any other vessels at said entry position while a received vessel is in said read station;

wherein said read station is capable of rotating a transferred vessel from said entry position to said read position independently of motion of said plurality of vessels through said defined recirculating path, to thereby allow different vessels to remain on said defined recirculating path for different amounts of time.